

Fishfinder 400C

owner's manual



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INTRODUCTION

The Fishfinder 400C is a full-featured, color sonar that offers a choice of display styles, a dual beam or dual frequency option, and more.

Fishfinder 400C Tips and Shortcuts

- Press **HOME** from any screen to return to the Home screen.
- Press **MENU** from any of the main screens to access advanced settings.
- Press and release the **OPOWER** key to adjust the display settings.

Quick Links

- Installing the Fishfinder 400C: page 1
- Mounting the Fishfinder 400C: page 2
- Installing the Transducer: page 4
- Basic Operation: page 15
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Product Registration

Help us better support you by completing our online registration today! Connect to our Web site at www.garmin.com/registration/.

Use this area to record the serial number (8-digit number located on the back of the Fishfinder 400C) in case your Fishfinder 400C needs service. Keep the original sales receipt, or a photocopy, in a safe place.

Serial Number:				

Contact Garmin

Contact Garmin if you have any questions while using your Fishfinder 400C. In the USA contact Garmin Product Support by phone: (913) 397-8200 or (800) 800-1020, Monday–Friday, 8 AM–5 PM Central Time; or go to www.garmin.com/support/, and click **Product Support**.

In Europe, contact Garmin (Europe) Ltd. at +44 (0) 870.8501241 (outside the UK) or 0808 2380000 (within the UK).

Tell Us What You Think

Tell us how you like this manual! Fill out the Product Documentation Survey. Go to www.garmin.com/contactUs/, and click **Product Documentation Survey**.

Caring for the Fishfinder 400C

The case is constructed of high-quality materials and does not require user maintenance, except cleaning.

Cleaning the Case

Clean the unit's outer casing (except for the screen) using a cloth dampened with a mild detergent solution and then wipe dry. Avoid chemical cleaners and solvents that may damage plastic components.

Cleaning the Screen

The unit's lens is coated with a special anti-reflective coating that is sensitive to skin oils, waxes and abrasive cleaners. Cleaners containing ammonia, alcohol, abrasives, or anti-grease detergents will harm the anti-reflective coating. It is important to clean the lens using an eyeglass lens cleaner (that is specified as safe for anti-reflective coatings) and a clean, lint-free cloth.

Water Immersion

The unit is waterproof to IEC Standard 60529 IPX7. It can withstand immersion in 1 meter of water for 30 minutes. Prolonged submersion can cause damage to the unit. After submersion, be certain to wipe and air dry the unit before reuse.

Warnings

Failure to avoid the following potentially hazardous situations could result in an accident or collision resulting in death or serious injury.

• When navigating, carefully compare information displayed on the unit to all available navigation sources, including information from visual sightings, and maps. For safety, always resolve any discrepancies or questions before continuing navigation.

WARNING: This product, its packaging, and its components contain chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. This Notice is provided in accordance with California's Proposition 65. See www.garmin.com/prop65 for more information.

Hg - LAMPS INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE, OR FEDERAL LAWS.

For more information go to: www.garmin.com/aboutGarmin/environment/disposal.jsp.

Important Information

The California Waste Recycling Act of 2003 requires the recycling of certain electronics. For more information on the applicability to this product, see www.erecycle.org.

INSTALLING THE FISHFINDER 400C

To successfully operate your Fishfinder 400C, you must properly install the fishfinder and all of its related parts. Compare the contents of this package with the packing list on the box. If any pieces are missing, contact your Garmin dealer immediately. Before you begin the installation:

- Read and follow the instructions to install the unit.
- Gather the appropriate fasteners and tools.
- Verify that all cables can reach the unit mounting location and the transducer.
- Wear safety goggles and a dust mask when drilling, cutting, or sanding.

If you experience difficulty installing the unit, contact Garmin Product Support or contact a professional installer.

To install and use your fishfinder:

- Select a location for the fishfinder.
- Mount the fishfinder.
- Install the transducer.
- 4. Install the wiring harness.
- 5. Test the installation.

Step 1: Select a Location for the Fishfinder

Consider the following when you select an installation location:

- Provides optimal viewing as you operate your vessel.
- Allows easy access to the unit's keypad.
- Is strong enough to support the weight of the fishfinder and protect it from excessive vibration or shock.
- Allows room for the routing and connection of the power/data and transducer cables. There should be at least a 3-inch (8 cm) clearance behind the case.

DO NOT mount the unit in an area that is exposed to extreme temperature conditions.



NOTE: The temperature range for the Fishfinder 400C is 5°F to 131°F (-15°C to 55°C). Extended exposure to temperatures exceeding this range (in storage or operating conditions) may cause failure of the LCD screen. This type of failure and related consequences are NOT covered by the manufacturer's limited warranty.

Step 2: Mount the Fishfinder

You can mount your fishfinder in one of two ways:

- Surface Mount—mount the fishfinder onto a bracket (included) that attaches to the console or overhead.
- **Flush Mount**—use the optional flush mount kit to mount the fishfinder into a flat panel. See the "Appendix" for more information.

Surface Mounting the Fishfinder

The Fishfinder 400C's compact, waterproof case is suitable for mounting in exposed locations or at the nav station. The Fishfinder 400C comes with a tilt/swivel mounting bracket that can be used for console or overhead mounting.

Mounting the Bracket Assembly

Tools (not included)—drill, screwdriver (Phillips or standard), and one of the following:

- Three #8 (4 mm) pan-head machine bolts with matching nuts and washers and a 5/32" (5 mm) drill bit.
- Three #8 pan-head self-tapping screws and a 1/16" drill bit for drilling starter holes.

Use a pan-head machine bolt or self-tapping screw to secure the swivel base. If you use a screw with a countersunk head, you risk damaging the mounting bracket.





To mount the bracket assembly:

- 1. Using the swivel base as a template, mark the location of the three holes that secure the bracket to the mounting surface.
- 2. Drill the mounting holes.
 - If you secure the base with machine bolts, drill three 5/32" (5 mm) holes at the locations you marked.

OR

 If you secure the base with self-tapping screws, drill starter holes at the locations you marked. Do not make the starter holes deeper than half the screw length.



- Secure the swivel base with three bolts or screws. DO NOT OVERTIGHTEN.
- Place the swivel mount bracket over the swivel base and secure it with the short knob.

Installing the Fishfinder 400C on the Mounting Bracket

To install the unit on the mounting bracket:

- Align the slot on the back of the fishfinder with the long mounting knob, and slide the fishfinder into place. If necessary, adjust the long knob to spread the bracket arms apart. (Turn counter-clockwise to widen the bracket arms and clockwise to tighten.)
- 2. Adjust the fishfinder angle, and tighten the long mounting knob until snug.



- 3. Rotate the swivel mount bracket by twisting it left or right. The bracket clicks as you turn it. Select a good viewing angle, and then tighten all knobs.
- 4. Connect the power/data and transducer cables to the back of the fishfinder, making sure the locking rings are fully tightened on both connectors.

Step 3: Install the Transducer

Proper transducer installation is key to getting the best performance from your fishfinder. If the transducer lead is too short, extension cables are available from your Garmin dealer. Coil and secure any excess cable



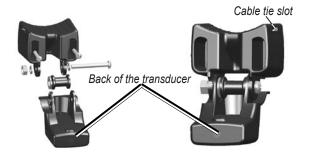
CAUTION: DO NOT cut the transducer lead or any part of the transducer cable, because cutting the transducer cable voids your warranty. The cable cannot be spliced and connected to any existing (Garmin or non-Garmin) transducer cables.

The following pages contain tips and basic installation instructions for some popular transducers. Detailed installation instructions are provided in the transducer kits. Some transducers might have to be installed by a professional marine installer.

Assembling the Transducer

To assemble the transducer:

- Insert the rubber washer and plastic spacer into the transducer at the same time. DO NOT lubricate the rubber washer.
- 2. Route the cable toward the back of the transducer. Slide the transducer into the transducer mount.
- 3. Place a 5 mm flat washer on the 10-32 x 1.75" screw, and insert the screw through the transducer mount, spacer, and rubber washer.
- 4. Place the remaining 5 mm flat washer on the exposed end. Install the 10-32 lock nut finger tight. You can tighten the transducer further after installation on the boat.



Mounting the Transducer on a Trolling Motor (Dual Beam Transducers Only)

To mount the transducer on a trolling motor:

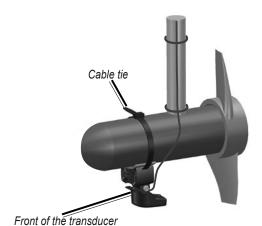
 Slide the large cable tie through the slot on the transducer mount with the ridges of the band facing up until equal lengths extend on both sides of the mount.



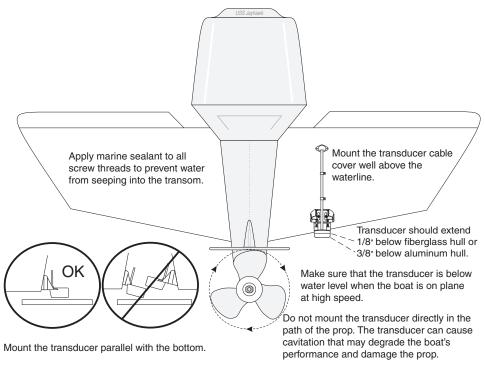
NOTE: For cold water, or heavy timber or debris areas, a metal 4-5" worm gear clamp is recommended.

- Position the mount gasket on the curved top of the transducer mount
- Place the transducer assembly against the motor body of the trolling motor, with the front of the transducer pointed away from the trolling motor propeller.
- 4. Wrap the two ends of the cable tie around the motor body. Place the pointed end of the cable tie through the fastener hole on the opposite end and pull it through until it is snug but not tight. (The cable tie clicks when you pull it.)
- Position the transducer so that it is parallel with the bottom when in use, and make sure the gasket is aligned properly.
 Pull the cable tie end until tight. Trim off the excess if necessary. Tighten the 10-32 locking nut until it touches the mounting bracket, and then tighten 1/4 turn more. (Do not overtighten.)

 Route the 30-foot (9 m) transducer cable using the supplied cable ties to secure the cable to the motor shaft. You can fill the forward-facing portion (except the cable tie pocket) of the transducer mount with sealant to avoid accumulating debris.



Mounting the Transducer on a Transom



When selecting a transom mount location, consider the following for optimal performance:

- For your sonar to operate properly, the transducer must be located in calm water. DO NOT mount the transducer behind strakes, rivet lines, struts, fittings, water intake, discharge ports, eroding paint, or anything that creates turbulence.
- Mount the transducer as close to the center of the boat as possible.
- DO NOT cut the transducer lead. (This voids your warranty.)
- DO NOT mount the transducer in locations where it might be jarred when launching, hauling, trailering, or storing.
- DO NOT mount the transducer in the path of the prop on single-drive boats. The transducer can cause cavitation that can degrade the boat's performance and damage the prop. On twin-drive boats, mount the transducer between the drives, if possible.



NOTE: DO NOT mount the transducer behind strakes, struts, fittings, water intake or discharge ports, or anything that creates air bubbles or causes the water to become turbulent. The transducer must be in clean (non-turbulent) water for optimal performance.

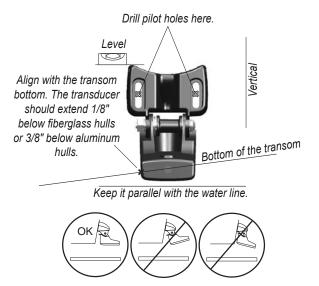
Tool List (not included)—drill, 3/8" wrench or socket, 5/32" and 1/8" drill bits, masking tape, #2 Phillips screwdriver, and marine sealant.

To mount the transducer on a transom:

- Position the transducer mount at the selected transom location. Make sure the transducer is parallel with the water line. Mark the center locations of each hole on the transducer mount.
- Using a 5/32" bit, drill the pilot holes approximately 1"
 (25 mm) deep at the marked locations. To avoid drilling the
 holes too deep, wrap a piece of tape around the bit at 1" from
 the point of the bit.
- 3. Apply marine sealant to the 5 x 30 mm screws. Attach the transducer assembly to the transom using the 5 x 30 mm screws. Adjust the transducer assembly to extend beyond the bottom of the transom approximately 1/8" (3 mm) on fiberglass hulls or 3/8" (10 mm) on aluminum hulls. Adjust the transducer assembly to be aligned parallel with the water.
- 4. Tighten the 10-32 locking nut until it touches the mounting bracket, and then tighten 1/4 turn more. (Do not overtighten.)
- Place the first cable clamp on the transducer cable approximately one third of the distance between the transducer and the top of the transom.

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- 6. Mark the location. Using a 1/8" bit, drill a pilot hole approximately 3/8" (10 mm) deep.
- 7. Attach the cable clamp using a 4 x 12 mm screw. Coat the screw with marine sealant before installation. Repeat steps 5 and 6 using the other cable clamp.
- Route the transducer cable, as needed, to the fishfinder. DO NOT CUT THE CABLE. Avoid routing the cable with electrical wires or other sources of electrical interference.



Shoot-Thru-Hull Installation

To avoid drilling a hole to mount a thru-hull transducer, a transducer can be secured with epoxy inside a boat (shoot-thru-hull installation). This type of installation can provide better noise reduction and allow you to use a higher Gain setting. For a transducer to be mounted inside the hull (shoot-thru, not thru-hull), the boat must be fiberglass, with no core. Contact your boat manufacturer if you are unsure. Professional installation might be necessary.

Some transducers are specifically designed to be mounted inside a fiberglass hull. The standard plastic transom mount transducer can also be mounted using this method. If using a temperature sensing transducer, the temperature shown reflects the hull temperature.

Selecting a Location for a Shoot-Thru-Hull Installation

When installing a transducer, the installation location must be the following:

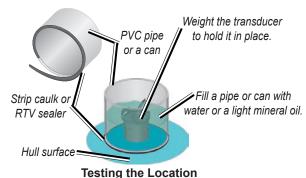
- Solid fiberglass, without any air bubbles, laminates, fillers, or dead air space.
- In an area of clean (non-turbulent) water at all speeds.
- The location must not be over any strakes or behind any obstruction on the hull that would create turbulence.



NOTE: Many modern hulls have a dedicated pocket for shoot-thru-hull transducer installation. If you are unsure if your hull is equipped with a pre-located pocket, contact your hull manufacturer.

To test the location:

- 1. Fabricate a test device from a section of PVC pipe or a can, as shown in the following illustration.
- Temporarily seal the test device to the hull with caulking or RTV sealer, and fill with water or light mineral oil.
- Place the transducer in the water, pointed directly at the bottom and weight it down. Set the unit for optimum performance. If the sonar performance is significantly degraded, another location must be tested.



rooming and Location

To permanently install the transducer:

- 1. Lightly sand the surface of the hull and face of the transducer with 400 grit wet or dry sandpaper.
- 2. Build a dam using strip caulk about 1/4" (6 mm) tall. Pour about 1/8" (3 mm) of two-part, slow-cure epoxy into the dam.
- 3. Place the transducer in the epoxy, turning the transducer to work out any air bubbles.
- Weight the transducer in place, and allow it to cure for 24 hours.

Step 4: Install the Wiring Harness

The Fishfinder 400C comes with a wiring harness that connects the fishfinder to power and the transducer with one easy-to-remove connection and provides interface capabilities for connecting external devices.

The color code in the diagram (see page 11) indicates the appropriate harness connections. The replacement fuse is a AGC/3AG - 3 Amp fuse. If it is necessary to extend the power wires, use 22 AWG wire. DO NOT cut the transducer cable, because this voids your warranty. If your boat has an electrical system, you might be able to wire the fishfinder directly to an unused holder on your current fuse block. If you are using the boat's fuse block, remove the in-line fuse holder supplied with the fishfinder. You can also wire the fishfinder directly to the battery.



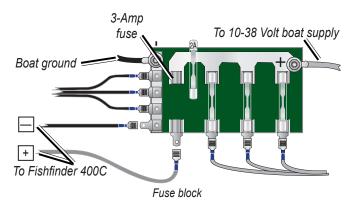
CAUTION: The Fishfinder 400C maximum input voltage is 35 Volts DC. Do not exceed this voltage, because this can damage the Fishfinder 400C and void the warranty.

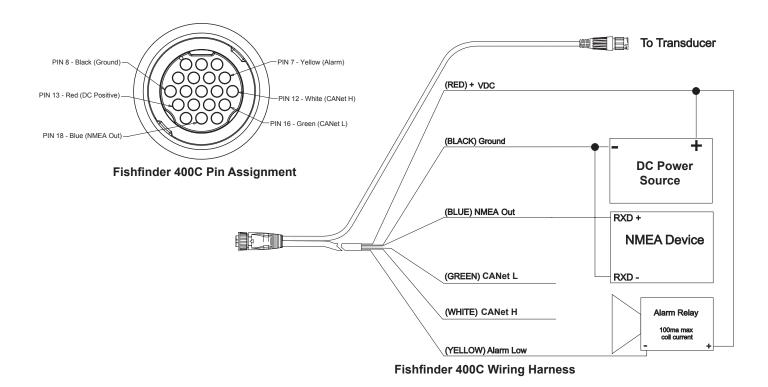


NOTE: During a typical installation, use only the Red and Black wires. The other wires do not have to be connected for normal operation of the Fishfinder 400C unit. For information on connecting to a NMEA or CANet compatible device, see page 12.

To install the wiring harness:

- Use a test light or voltmeter to determine the polarity of the voltage source.
- 2. Connect the Red (+ or positive) wire to the positive voltage terminal. (If you use the boat's fuse block, route the positive connection through the fuse, as shown on the diagram.)
- Connect the Black (- or ground) wire to the negative voltage terminal.
- 4. Install or check the 3-Amp fuse (on the boat's fuse block or in the in-line holder).
- Align the notches on the cable plug and on the back of the fishfinder. Insert the cable into the connector, and turn the lock ring counter-clockwise until it stops.





Connecting to a NMEA device

You can connect the Fishfinder 400C to another piece of NMEA compatible electronic equipment, such as a Garmin GPS (Global Positioning System) device. If equipped with a capable transducer, the Fishfinder 400C can send depth, temperature, and speed information. Refer to the wiring diagrams on page 11 for connecting the Fishfinder 400C to NMEA compatible devices.

To install the wiring harness to a GPS or other NMEA device:

- Follow the voltage source installation steps (see page 10).
 For Garmin units, the ground (Black) wires serve as NMEA ground and must be attached together or on the same terminal. Refer to the wiring diagram of your GPS unit for wire identification.
- 2. Connect the Blue (NMEA Out) wire from the Fishfinder 400C to the NMEA In wire on the GPS/NMEA unit's wiring harness.
- Turn on the Fishfinder 400C NMEA Output setting (page 23).
 For Garmin GPS units, set the communications interface to NMEA/NMEA, NMEA In/NMEA Out, or NMEA.

Interfacing with NMEA

The Fishfinder 400C allows for NMEA 0183, Version 3.01 output with a compatible GPS or navigation device. You must set **NMEA Output On** to send data (page 23).

The SDDBT, SDDPT, SDMTW, SDVHW, SDWPL sentences are sent in NMEA 0183, Version 3.01 output from the Fishfinder 400C.

You can purchase complete information about National Marine Electronics Association (NMEA) format and sentences from: NMEA

Seven Riggs Avenue Severna Park, MD 21146 USA www.nmea.org

Installing the Fishfinder 400C to a Garmin CANet

The Fishfinder 400C is a CANet-compatible sonar device. Using the CANet (if applicable) optimizes the performance of CANet-compatible units, allowing sonar information from the Fishfinder 400C to be shared with up to two CANet compatible Garmin GPS units. A standard NMEA connection only allows depth, temperature, and speed information to be sent to a single GPS device, whereas a CANet connection provides full sonar readings, including Ultrascroll™, so you can view and control the same information on your compatible GPS unit(s) as you can on your Fishfinder 400C.



NOTE: To use the Garmin CANet with your Fishfinder 400C, you must obtain a CANet Kit. Contact your Garmin dealer, or visit www.garmin.com.

Step 5: Test the Installation

To turn on your Fishfinder 400C for the first time, press and hold the **OPOWER** key until the unit beeps and turns on. Use the **ROCKER** and the **SELECT** key and follow the screens to configure your Fishfinder 400C.



NOTE: Although it is possible to perform some checks with the boat trailered, the boat should be in the water to properly test the installation.

To configure your Fishfinder 400C for the first time:

Select a language.



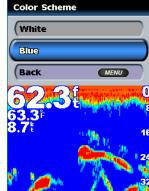
2 Select a transducer type.



Select units of measure.



Select a color scheme.



The Home screen appears after you select your configuration options. After 15 seconds of inactivity, the fishfinder automatically switches to Full Screen



NOTE: If the transducer is not detected, a "Transducer Disconnected, Sonar Turned Off" message appears.

Because water is necessary to carry the sounder's sonar signal, the transducer must be in the water to work properly. You cannot get a depth or distance reading when out of the water.

When you place your boat in the water check for leaks around any screw holes that were added below the water line. DO NOT leave your boat in the water for an extended period of time without checking for leaks.

To test the transom mount transducer installation:

- Begin testing the installation at a slow speed. If the sonar appears to be working properly, gradually increase the boat's speed while observing the sonar's operation. If the sonar signal is suddenly lost or the bottom return is severely degraded, note the speed at which this occurs.
- 2. Return the boat to the speed at which the signal was lost. Make moderate turns in both directions, and see if the signal improves.

- If the signal strength improves while turning, adjust the transducer so that it extends another 1/8" below the transom of the boat. It might take several adjustments to eliminate the degradation.
- If the signal does not improve, you might have to move the transducer to a different location.



NOTE: When adjusting the depth of the transducer, make the adjustments in small increments. Placing the transducer too deep can adversely affect the boat's performance and put the transducer at greater risk of striking underwater objects.